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BOROUGH OF COLWYN BAY



ANNUAL REPORT

FOR THE YEAR 1943

of the

MEDICAL OFFICER OF HEALTH

WILLIAM McKENDRICK, M.D., D.P.H.

which includes the

ANNUAL REPORT

of the

SANITARY INSPECTOR,

WM. A. AUSTWICK, M.S.I.A.

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HEALTH COMMITTEE (1943-44)

Councillor E. A. Neill (Chairman)

Councillor J. H. Williams (Vice-Chairman)

Alderman E. M. Hovey, J.P.

Councillor B. A. Hickman

Alderman H. Parry, J.P.

Councillor J. Holman, J.P.

Alderman J. Roberts

Councillor W. Swindells

Councillor Dr. W. Griffiths

Councillor J. Thomas

Mayor of the Borough: Councillor C. Palmer

MATERNITY AND CHILD WELFARE COMMITTEE

Alderman E. M. Hovey, J.P. (Chairman)

Councillor W. Swindells (Vice-Chairman)

All Members of the Health Committee together with the
• following co-opted members:

Miss Gameson

Mrs. F. Davies

Mrs. E. H. Jones

Mrs. D. Scouler

Miss P. Robinson

STAFF OF THE HEALTH DEPARTMENT, 1943-1944

Medical Officer of Health:

Wm KcKENDRICK, M.D., D.P.H.

Sanitary Inspector:

Wm. A. AUSTWICK, M.S.I.A., Cert. Meat and Other Foods

Additional Sanitary Inspector:

I. WYNN JONES, M.S.I.A., Cert. Meat and Other Foods

Lady Health Visitor:

Miss K. H. DAVIES, S.R.N., C.M.B., Cert. Q.V.T.I.

Matron of the Isolation Hospital:

Miss C. M. JONES, S.R.N.

Matron of the Maternity Home:

Miss MARY HUGHES, S.R.N., S.C.M.

Clerks:

Mrs. P. G. STORRS

Miss B. THOMAS

Health Department,
Town Hall,
Colwyn Bay,
June, 1944.

To the Chairman and Members of the Health and Maternity
Committees.

Ladies and Gentlemen,

I submit my report on the health of the Burgesses of
Colwyn Bay during 1943.

The Infant Mortality rate fell to 32 per 1,000, and there were no maternal deaths. These facts are most satisfactory. The general mortality, however, rose to 14.5. This was mainly due to deaths amongst elderly persons; the chief causes of death were cancer, heart and vascular diseases. The incidence of infectious disease increased—there being 276 cases of measles as against 50 in 1942, and 25 cases of Whooping Cough as against 5 in 1942. It is noteworthy that amongst the 25 cases of Diphtheria, only one occurred in a child under 5 years—and she was a non-immunised visitor. It is becoming clear, however, that immunisation does in some children lose its potency after 4-5 years, and I have recommended that a stimulating dose be offered to all children early in school life. Practically all children are now being immunised before reaching their first birthday.

The population has now fallen to very little more than its pre-war level.

There have not been any new developments in the Health Services, although there has been much “planning” both locally and in Parliament. It is distantly possible that some

good will come of all this talk, but whether the individual inhabitants will be happy as a result, is hardly probable.

Plato in the Republic asks the topical question: "Is it not the surest sign of a disgracefully low state of education that highly skilled physicians and judges should be in request." Plato may be an old fool but it really is questionable whether more "doctoring" will be good for us and if State Medical Service is used to discipline the public, as it may well do, the public will be very dissatisfied. The desire for a better world is commendable, the desire for change merely because it is "different," is not commendable. Much of the development foreshadowed will only result in enlarged and costly staffs under new management. I have to commend all my staff.

Yours sincerely,

Wm. McKENDRICK,

Medical Officer of Health.

VITAL STATISTICS

Area of Borough (Acres)	7124
Inhabited Houses	6318
Rateable Value	£223433
Sum represented by a penny rate	£906

Live Births:	Male	Female	Total
Total	151	120	271
Legitimate	138	109	247
Illegitimate	13	11	24
Birth Rate per 1000 population = 10.4.			

Infant Mortality Rates:—

All infants per 1000 total births	=	32.1
Legitimate infants per 1000 legitimate births	=	32.1
Illegitimate infants per 1000 illegitimate births	=	0.0

Deaths:

Male	181
Female	199
Total	380
Mortality rate per 1000 inhabitants	14.5
Deaths from Puerperal Causes	—

Deaths from:

Cancer	56
Measles	1
Diarrhoea	—

These figures are unusual. An infant mortality figure of 32 per 1000 is exceptionally low—the lowest since Colwyn Bay became a Borough. The corresponding rate for England and Wales was 49. The fact that there was no death due to puerperal causes is a matter of congratulation.

The birth rate was exceptionally low—10.4 as against a National figure of 16.5. When account is taken of the fact that there were 24 illegitimate births—the highest on record—this figure is startling. Without the aid of these extra marital births the rate would have been 9.5. The death rate was 14.5. We are not balancing our budget.

Causes of Death	Male	Female	Total
Diphtheria	0	1	1
Tuberculosis (respiratory)	6	5	11
Tuberculosis (other forms)	3	2	5
Syphilitic diseases	0	1	1
Influenza	3	3	6
Measles	0	1	1
Acute inf. encephalitis	0	1	1
Cancer:			
Throat, etc.	4	0	4
Stomach	2	7	9
Breast	1	7	8
Other sites	18	17	35
Diabetes	0	3	3
Intracranial Vascular lesions	18	33	51
Heart Diseases	57	56	113
Other circulatory diseases	11	14	25
Bronchitis	9	6	15
Pneumonia	4	9	13
Other respiratory diseases	2	5	7
Ulcer of stomach, etc.	2	0	2
Appendicitis	2	1	3
Other digestive diseases	8	6	14
Nephritis	3	1	4
Premature birth	0	1	1
Congenital malformation, etc.	2	1	3
Suicide	1	0	1
Road Traffic Accidents	3	0	3
Other violent causes	6	3	9
All other causes	16	15	31
Total	181	199	380

The causes of death show for the first time that over 100 persons died of heart disease. There were 92 deaths from

this cause in 1942 and 113 in 1943. Deaths from cancer have also increased, as have diseases of the digestive organs. Deaths from Tuberculosis after a big drop last year have returned to the 1941 figure.

General Provision of Health Services for the Area

Laboratory Facilities:

These continue unchanged. Bacteriological work in connection with epidemiology is done by the Ministry of Health Emergency Laboratory. Throat swabs, etc., may be sent direct by post or bus or if delivered to my office by mid-day, may be transmitted through the Health Department. Swabs taken between mid-day on Saturday and 9 a.m. on Monday must be sent to Conway by the Doctor who takes them—it is futile to put a specimen in a letter box at the Town Hall on Saturday evening and hope for an early report.

During 1943, 298 swabs were examined—60 were positive for Diphtheria. 3 samples of faeces were examined for dysentery and were found positive.

48 samples of water and 381 samples of milk were sent to the School of Agriculture.

Ambulance Facilities:

The Colwyn Bay and District Voluntary Ambulance Corps has throughout the year again served the town well. The members undertake to provide transport for sick persons at any time of the day or night. The work is exacting and time consuming. This is a service that shows the "Voluntary System" at its best. Work done in the year ending March 31st, 1944, was:—

Accidents	54 (fatal 4)
Taken to Hospital	163
Taken to Nursing Homes	72
From House to House	92
Transport out of district	95
Total mileage	11186
Ambulance Case Hours	914
Personnel Case Hours	3656
Total cases	476

Nursing in the Home:

There is no change to report in the arrangements for Home Nursing by the 3 District Nursing Associations with their four trained Nurses.

During 1943, in spite of much effort, no person could be obtained to serve as Home Help. The British Red Cross Volunteers gave some assistance during the Influenza Epidemic. A Home Help is now available.

Clinics:

These have not been altered recently although there has been a request that a Child Welfare Centre be opened at Mochdre. This was sympathetically considered but it is impracticable to staff any new Clinics at the present time, so opening is deferred.

The Clinics are now all held at the Clinic, Nant-y-Glyn Road, as follows:—

Tuesday *Child Welfare Centres at 10 a.m. and 2 p.m.

Thursdays Orthopaedic Centre at 11 a.m. on alternate weeks.
Obstetrical Consultant's Clinic by appointment.

Fridays Tuberculosis Clinic at 10 a.m. on 1st and 3rd Fridays of each month.

*Ante-Natal Clinic at 2 p.m. each week.

*Attended by the Medical Officer of Health.

There is not a Day Nursery in the area.

Venereal Diseases are treated as follows:

Chester Royal Infirmary: Out-patients' Department

Males—Monday 5-7 p.m.

Saturdays noon.

Females—Mondays 5-7 p.m.

Thursdays 5-7 p.m.

Bangor-Caernarvonshire and Anglesey Infirmary —
Out-Patients' Department.

Males—Tuesdays 2-3 p.m.

Females—Fridays 2-3 p.m.

Hospitals:

There is no change to record in the arrangements for hospitalisation of residents.

Maternity and Child Welfare:**(1) Births Notified:—**

(a) Live Births	340
(b) Still Births	12
(c) Total	352

89 of these were born to non-residents, e.g., in the Maternity Home or Nursing Homes of Colwyn Bay. These notifications were transferred to the home district of the mother.

(2) Visits paid by the Health Visitor:—

	First Visits	Total Visits
(a) To expectant mothers	112	255
(b) To children under 1 year .	324	1854
(c) To children between 1 and 5 years	—	2583

(3) Infant Welfare Centres:—

Total number of children under 5 years who first attended at the Centres in 1943 and who were at their first attendance

(a) Under 1 year of age	*195
(b) Over 1 year of age	38

*excluding children known to have previously attended a Centre in another district.

At the end of 1943 were

(a) Under 1 year of age	169
(b) Over 1 year of age	124

(4) Ante-Natal and Post-Natal Services:—

(1) Total number of women who attended during 1943:	
(a) Ante-Natal	222
(b) Post-Natal	
(2) Total attendances:	
(a) Ante-Natal	888
(b) Post-Natal	73

Mr. R. Owen Jones, F.R.C.S., the Obstetrical Consultant to the Colwyn Bay Corporation, reports as follows:—

88 new Ante-Natal patients were examined at the Consultative Clinic and 51 re-examined.

There were 76 Post-Natal examinations.

There has been a steady increase of abnormal cases referred by their own doctors.

These figures show that the Maternity and Child Welfare Services maintain their popularity. The population of the town has fallen considerably and consequently the infant population has fallen—this accounts for the slight fall in attendances at the Clinic and visits by the Health Visitor. The number of babies born to Colwyn Bay residents in 1942 was 317; in 1943 there were only 247—a drop of almost 23 per cent. When it is noted that 222 women attended the Ante-Natal Clinic and 195 babies under 1 year attended the Child Welfare Centre (i.e., 90 per cent. and 79 per cent. respectively of the number of children born to residents) it will be appreciated how this service is being used. Actually the percentages slightly overstate the position as some women and children from outside the Borough make use of the Clinics. On the other side of the picture, however, we find a very small percentage of children between 1 and 5 years attending the Clinics. Accurate estimation is impossible as many of these toddlers attend day school and are seen there regularly.

(5) **Maternity Home:**

196 women were admitted to the Maternity Home in 1943. 182 were admitted for confinement and 14 for ante-natal care. 132 of these women were Colwyn Bay residents; 45 were residents in Denbigh County Area, and 19 came from outside the County.

The Home has served a useful purpose but it needs extension. There is now a need for an additional nursery. The present one is overcrowded when 10 infants are in it; moreover there is no suitable room for the nursing of premature infants. The need for Ante-Natal care is being more and more appreciated. 14 women were admitted for this

purpose in 1943. No accommodation exists for post-natal treatment (e.g., after the first 14 days of the Puerperium). To some extent these demands are extensions beyond the original purpose of the Maternity Home. The Council accepts them as necessary and has submitted to the Ministry of Health plans for extensions—these have been deferred meantime by the Central Authority.

Home Helps:

During 1943 attempts were made to secure some woman to act as Home Help but none was available. Early in 1944 the Ministry of Labour secured a suitable woman and she is now serving.

Dental Treatment:

Three women were given dental treatment under the Council's Scheme in 1942.

Nutrition:

The Council does not provide meals for expectant or nursing mothers. This is a service that is becoming more and more desirable. The long deferred provision of meals for school-children is likely to mature soon; canteens in works provide for most of the employable members of the family. The only person unprovided for is the mother and cooking for one is apt to develop into cooking for none—thus the one person who needs a good mid-day meal is the only one likely to go without.

Attendances at Clinics:

(a) Enrolments.	1939	1940	1941	1942	1943
Children under 1 year	134	151	164	188	169
Children 1-5 years	73	200	158	149	124
Mothers—Ante-Natal	134	200	234	238	227
Post-Natal	40	50	59	63	55

(b) Total attendances.

Children under 1 year	3969	3676	3377	4936	4483
Children 1-5 years	1092	1199	1178	1051	1885
Mothers—Ante-Natal	428	738	986	1154	888
Post-Natal	58	67	73	159	73

Sanitary Circumstances in the Borough

The following report has been given me by the Senior Sanitary Inspector (Mr. W. A. Austwick) on work carried out for the year ending December, 1943.

GENERAL SUMMARY.

TABLE I.

Complaints received and attended to	173
No. of Nuisances found	624
" " Houses in which Nuisances were found	400
" " Nuisances abated	616
" " Nuisances not abated but work in hand	8
" " Drains and Fittings tested with colour, smell or smoke machine	22
" " Revisits to Nuisances, work in progress, etc.	1079
" " Visits to Camps	4
" " Preliminary Notices served for Nuisances	624
" " Formal Notices and Orders served for Nuisances ..	1
" " Visits to Bakehouses, Restaurants and Cafes	196
" " Visits to Factories with mechanical power	211
" " Visits to Factories without mechanical power ...	14
" " Visits to Cowsheds	178
" " Visits to Dairies and Milkshops	374
" " Milk samples taken for Tuberculous Bacilli	97
" " Ungraded Milk Samples taken	288
" " Pastuerised Milk Samples taken	55
" " Tuberculin Tested Milk Samples taken	4
" " Certified Milk	10
" " Accredited Milk	24
" " Visits to Ice Cream Shops	0
" " Offensive Trades, including Fried Fish Shops ...	90
" " Visits to Sanitary Conveniences of Schools	6
" " Visits to Kitchens of Restaurants	45
" " Miscellaneous Visits	356
" " Verminous Rooms Disinfected	31
" " Inspections made to Dance Halls, Cinemas and other places of Entertainment	52

No. of Inspections re Rats and Mice	217
„ „ Inspections to Houses re Billets	33
„ „ Visits to Flats	244
„ „ Re overcrowding and Rent overcharging	14

TABLE II.

SANITARY DEFECTS.

No. of Stopped Drains	130
„ „ Defective Drains	43
„ „ Defective or stopped Septic Tanks or Cesspools	14
„ „ Want of, or insufficient drainage and W.C. accommodation	0
„ „ Defective W.C. Cisterns and Fittings	15
„ „ Broken and unsuitable W.C. pedestals and pans	4
„ „ Dirty conditions of houses, outhouses and yards	9
„ „ Want of Limewashing	57
„ „ Defective or new Inspection Chambers	7
„ „ Defective Sink and Waste Pipes	8
„ „ Burst Water Pipes	8
„ „ Defective Roofs—Houses and Outbuildings	13
„ „ Defective Floors and Doors in Rooms	22
„ „ Defective Paving of Yards and Outhouses	0
„ „ Defective Eaves and Downspouting	19
„ „ Miscellaneous Nuisances (outside)	43
„ „ Miscellaneous Nuisances (inside)	34
„ „ Accumulations—manure and other refuse	15
„ „ Dilapidated Ashbins	127
„ „ Defective Plastering of Walls and Ceilings	1
„ „ Damp conditions in Houses	11
„ „ Premises (Rats)	34
„ „ Insufficient or unsatisfactory Washing accommodation	0
„ „ New Pedestals W.C.	4
„ „ Defective Short Hoppers, etc., abolished	0
„ „ Choked Road Ditches	0
„ „ Defective Grates	3
„ „ Defective Window Frames, etc.	1
„ „ Cases of Cooking facilities required	0
„ „ Misuse of surface water gullies	2
„ „ Defective chimneys	3
„ „ Drains reconstructed	19
„ „ Flooded cellars	13

TABLE III.

During the year the following visits have been made to the Abattoir and to other food premises:—

No. of Vists and Re-visits to Abattoir	399
„ „ Visits to Butchers' Shops	191
„ „ Visits to Fish Shops	44
„ „ Visits to Food Shops	231
„ „ Carcases of Beef inspected	1735
„ „ Sheep and Lambs inspected	24857
„ „ Pigs inspected	115
„ „ Sows inspected	1
„ „ Calves inspected	1125
Also a large quantity of Fish and other Food Stuffs	

TABLE IV.

REFUSE COLLECTION AND DISPOSAL

No. of Visits re Collection and Salvage	504
„ „ Visits re Disposal	356
Regular inspections of the tip were made. Prebaiting and poisoning, also Gas were used at regular intervals to keep down the rat population.	

TABLE V.

WATER SUPPLIES.

	Bact.	Chem
No. of Water Samples—Town Mains	44	2
Wells and Streams ...	0	0
Rhos Swimming Pool	3	0
Bryn-y-Maen	1	0

TABLE VI.

Premises registered for the manufacture of Sausages, etc.	22
Premises registered for the manufacture of Ice Cream	11

1—Inspection of Factories, Workshops and Workplaces

Premises [1]	Number of		
	Inspections [2]	Written Notices [3]	Occupiers prosecuted [4]
FACTORIES	211	No statutory notices issued the work being done on re- ceipt of a letter making the necessary request	
[with Power]	14		
FACTORIES (without Power)			
Total	225		

2—Defects found in Factories, Workshops and Workplaces

Particulars (1)	Number of Defects			Number of offences in respect to which Prose- cutions were instituted [5]
	Found [2]	Remedied [3]	Referred to H.M. Inspector [4]	
<i>Nuisances under the Public Health Acts*</i>				
Want of cleanliness	19	19		
Want of ventilation				
Overcrowding				
Want of drainage of floors				
Other nuisances	25	25		Nil
Sanitary accommodation { unsufficient, unsult- able or defective not separate of sexes				Nil
<i>Offences under the Factory and Workshop Acts</i>				
Illegal occupation of underground bakehouse [s. 101]				
Other offences [Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health [Factories and Work- shops Transfer of Powers Order, 1921]				
Total	44	44		

*Including those specified in Sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts,

Nuisances from Premises other than Dwellings

Bakehouses	19
Hotels and Cafes	40
Garages and Miscellaneous	15
Shops	47
Fried Fish Shops	4
Offices	2
Cinemas	3
Military	17
Schools	3
Butchers	3
Farms	51
Dairies	4
Air Raid Shelters	0
Club Rooms	9

Factories, Workshops and Bakehouses

Regular inspections have been carried out during the year, to the above premises, drawing the attention of the occupiers to any defects or lack of cleanliness as occasions arise. Notices were also served for limewashing, defects and alterations to existing sanitary conveniences, which were readily complied with.

Registered Workshops

Important classes of Workshops, such as Workshops, Bakehouses, etc., may be enumerated here.

The number of Workshops on the Register at the end of the year was as follows:—

Bakers and Confectioners	22
Dressmakers and Milliners	11
Bootmakers and Repairers	13
Tailors	5
Laundries	7
Joiners and Cabinet Makers	7
Bottling Stores	4
Cycle and Motor Workshops	23
Printing Works	3
Upholsterers	4
Miscellaneous	38
Diamond Cutting, etc.	2

Smoke Abatement

There have been no prosecutions for Smoke Abatement.

Swimming Pools

There is one Public Swimming Pool in the district, which is managed very efficiently. The water is sea water subjected to chlorination. Three samples of the water were taken for analysis and reported on as being "satisfactory."

Fried Fish Shops

Fried Fish Shops 12

The above are regularly inspected and are well conducted.

Housing

No houses have been built by private enterprise or by the Local Authority.

There is a considerable number of compulsory and voluntary evacuees in the town, and this occasionally leads to a certain amount of overcrowding, but in the circumstances, we accept this where we cannot help. We are only too pleased to receive these people from more unfortunate areas, and to do what we can for them until happier times return.

HOUSING STATISTICS.

1. Inspection of Dwelling Houses during the year—

(1)	(a)	Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	400
		Number of inspections made for the purpose	423
(2)	(a)	Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	35
	(b)	Number of inspections made for the purpose	41

- | | | |
|-----|---|-----|
| (3) | Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation | Nil |
| (4) | Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation | 400 |

2. Remedy of Defects during the year without Service of Formal Notice.

- | | |
|---|-----|
| Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers | 413 |
|---|-----|

3. Action under Statutory Powers during the Year

(a) Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936—

- | | | |
|-----|---|-----|
| (1) | Number of dwelling houses in respect of which notices were served requiring repairs | Nil |
| (2) | Number of dwelling houses which were rendered fit after service of formal notice ... | Nil |
| | (a) By owners | Nil |
| | (b) By Local Authority in default of owners | Nil |

(b) Proceedings under Public Health Acts—

- | | | |
|-----|--|-----|
| (1) | Number of dwelling houses in respect of which Notices were served requiring defects to be remedied | 1 |
| (2) | Number of dwelling houses in which defects were remedied after service of formal notice | |
| | (a) By owners | 1 |
| | (b) By Local Authority in default of owners | Nil |

(c) Proceedings under Section 11 and 13 of the Housing Act, 1936—

- | | | |
|-----|---|-----|
| (1) | Number of dwelling houses in respect of which Demolition Orders were made | Nil |
| (2) | Number of dwelling houses demolished in pursuance of Demolition Orders | Nil |
| | Houses scheduled demolished by owners | Nil |

(d) Proceedings under Section 12 of the Housing Act, 1936—	
(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil
(2) No. of separate tenements or underground rooms in respect of which Closing Orders were determined the tenement or rooms having been rendered fit	Nil
Number of houses built by private enterprise	Nil
Number of houses built by Borough Council	Nil

HOUSING ACT, 1935—Overcrowding

(a) (1) Number of dwellings overcrowded at the end of the year		*
(2) Number of families dwelling therein		*
(3) Number of persons dwelling therein		*
(b) Number of cases of overcrowding reported during the year		Nil
(c) (1) Number of cases of overcrowding relieved during the year by Local Authority		Nil
(2) Number of persons concerned in such cases		Nil
(d) Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding		Nil
(e) Any other particulars with respect to overcrowding conditions upon which the Medical Officer of Health may consider it desirable to report		*

*Owing to the abnormal conditions, particularly after the outbreak of War, it was found impossible to keep any accurate record of overcrowding.

Work carried out during 1943

No. of houses inspected for housing defects	400
„ „ Houses found not in all respects reasonably fit for human habitation	400
„ „ Defective Houses rendered fit in consequence of informal action	413
„ „ Defective Houses rendered fit in consequence of formal action	1
„ „ Houses recommended for demolition	Nil
„ „ Houses re-inspected, including the supervision of repairs	655
„ „ Informal Notices served	400
„ „ Formal Notices served	1

Public Places of Entertainment

Under Circular 120 of the Ministry of Health it is necessary for all places of entertainment to be thoroughly inspected annually in order that licences may be issued by the Licensing Magistrates.

Fifty-two visits have been made, inspecting the sanitary conveniences, general cleanliness, ventilation, fire appliances, exits, etc. Any required work has always been done promptly on receipt of verbal notice.

Rag Flocks Act, 1911-1928

There are no premises which are governed by the above Acts in the Borough.

Rodent Infestation

The method of Rat Destruction suggested by the Ministry of Food has proved very successful. The Pre-baiting, Poison Baiting and Check Baiting takes a considerable amount of time but the results justify the effort. We commenced our campaign by treating all sewers suspected of being rat infested in any degree, simultaneously treating Corporation tips, etc. Check baiting has proved a terrific decrease in the rat population.

In recent complaints and in all cases of known infestations of premises, the co-operation of the occupiers has been obtained, and the pre-baiting method carried out whenever suitable. Subsequent re-inspections showed that the rats had, in most cases, been entirely eliminated to the entire satisfaction of the occupier.

Rat proofing of the premises is always advised after treatment but is extremely difficult to maintain.

Public Abattoir. Meat and other Food Inspections

The combination of a Municipally owned Abattoir and the Corporation being the Slaughtering Contractors to the Ministry of Food, continues to be a very successful one. It gives complete control of all animals from the moment of their arrival to the time the carcasses and offal are handed over to the W.M.S.A. Lairage, slaughtering and meat inspection go on smoothly and efficiently and the 15 acres of grass land acquired for the Abattoir ensure adequate food and rest for the animals before slaughter.

In addition, these fields produced a fine hay crop enabling us to dispose of a surplus of thirty tons after the stock requirements had been met.

The number of animals slaughtered is greater than last year, and we must appreciate how very fortunate we are to have such a very high proportion of home killed to imported meat.

During the year we commenced paying a bonus to the slaughtermen for producing first-class hides which proved very successful. The staff problem was somewhat difficult at times, but that is to be expected under the circumstances.

No meat is sold from stalls, and all shops in which food is prepared, sold or stored, have been regularly inspected, and it was found that the very high standard of cleanliness we expect, is being maintained.

Number of Animals slaughtered at the Public Abattoir during 1943—

Cattle	Calves	Sheep and Lambs	Pigs	Sows	Revenue
1732	1125	24857	115	1	£747 4 1

Imported Meat handled at the Public Abattoir during 1943—

Boneless Fores, Hinds and Quarters of Beef	Sheep and Lambs	Bags, Crops, Ponies Pigs, Ribs and Cases of Offal	Revenue
1297	10637	0 256832 lbs.	£177 5 6

Wet Fish Shops, Greengrocers and Provision Shops and all other premises where food is prepared, stored or sold, are regularly inspected.

Carcases Inspected and Condemned.

	Cattle ex. Cows	Cows	Calves	Sheep and Lambs	Pigs	Sows
No. killed (if known)	1426	311	1125	24857	115	1
No. inspected	1426	311	1125	24857	115	1

All diseases except T.B.—

Whole carcases condemned	1	4	5	12	0	0
--------------------------	---	---	---	----	---	---

Carcases of which some part or organ was condemned

188	41	5	935	12	1
-----	----	---	-----	----	---

Percentage of the No. inspected affected with diseases other than T.B.

12.5	14.4	.8	3.8	10.4	11.1
------	------	----	-----	------	------

Tuberculosis only—

Whole carcases condemned	5	14	—	—	1	—
--------------------------	---	----	---	---	---	---

Carcases of which some part or organ was condemned

66	12	—	—	—	—
----	----	---	---	---	---

Percentage of the number inspected affected with Tuberculosis

4.9	8.3	—	—	.87	—
-----	-----	---	---	-----	---

Unsound Meat at Abattoir disposed of by the Ministry of Food

Beef.

14 Cows—Gen. T.B.	5847 lbs.
4 Cows—Other Diseases	1703 "
5 Oxen—Gen. T.B.	2702 "
5 Oxen—Other Diseases	1948 "
Part Carcases	1700 "
Lungs, Livers, etc.	2925 "

Pork.

One carcase (General T.B.)	46 "
Part carcases	162 "
Plucks and Livers	46 "

Veal.

Five carcases and offal (emaciation and dropsy)	171 "
Part Carcases	35 "
Plucks	9 "

Mutton and Lamb.

Twelve carcases (emaciation, etc.)	308 "
Part carcases (bruising, etc.)	151 "
Heads, Plucks, Livers	1963 "

Unsound Food from Shops.

Marmalade	2 lbs.
Jam	35 "
Canned Fish	128 tins
Mincemeat	6 lbs.
Canned Milk	151 tins
Bacon and Ham	109 lbs.
Margarine	24 lbs.
Coffee	1 bott
Dried Eggs	4 pkt
Flour	836½ lbs.
Sugar	42 lbs.
Canned Vegetables	348 tins
Canned Soup	42 tins
Canned Fruit	249 tins
Syrup	1 tin
Butter	21 lbs.
Wet Fish	139 stone, 6 lbs.
Sweets	3½ lbs.
Chocolates	9 lbs.
Cabbage	41 nets
Prunes	30½ lbs.
Scotch Oats	974 lbs.
Pickles	7 jars
Barley	140 lbs.
Cheese	178½ lbs.
Rabbits	9 lbs.
Meat	595 lbs.
Meat Paste	2 jars
Eggs	242 "
Tinned Meat	1608 lbs.

Milk Supplies

In view of the greatly increased staff difficulties on all farms and dairies, it was felt that more stringent control was necessary if we were to maintain a wholesome supply of milk, consequently we took many more samples than in any previous year, as will be seen by the following figures. Our efforts proved well worth while and were much appreciated by the Milk Producers and Dairymen. We are now acting as an Advisory Bureau, being in the happy position of having producers and dairymen asking us to take samples and asking for help and guidance whenever they are in doubt or feel that we can be of assistance to them. This co-operative spirit has proved a very great asset in successfully maintaining a supply of satisfactory milk.

1936—	31	total samples taken (Biological and Bacteriological)
1937—	4	do.
1938—	80	do.
1939—	46	do. (incl. 0 positive Biological 10 negative do.)
1940—	90	do. (incl. 3 positive Biological 26 negative do.)
1941—	81	do. (incl. 0 positive Biological 25 negative do.)
1942—	117	do. (incl. 0 positive Biological 34 negative do.)
1943—	478	do. (incl. 0 positive Biological 97 negative do.)

Analysis of Samples taken during 1943

Samples examined for Keeping Quality

Pasteurised and heat treated	55
Certified T.T.	10
Tuberculin Tested	4
Accredited	24
Ungraded	288
Total	381

Results

Satisfactory	221
Fair	60
*Unsatisfactory	84
*12 of these were delayed 24 hours in transit to Laboratory	
Samples not tested owing to excessive delay in transit to Laboratory	16
	<hr/>
	381

Bacteriological Tests

Plate Count and B. Coli :.....	94
Resazurin	283
Methylene Blue	4
Phosphatase	15

Butter Fat Tests

Over 3%	93
Under 3%	17

Biological Tests

Positive	—
Negative	97

All Milks were examined at the University College of North Wales, Bangor.

552 visits were paid to Farms, Dairies and Milk Shops at varying times of the day and were usually found to be in a satisfactory condition. Any required work was always carried out promptly on receipt of a verbal notice.

Refuse Collection and Disposal

Year ending 31st March, 1944

	Collection	Disposal
Wages	2687	405
Haulage	2676	210
Other Expenses	517	162
	<hr/>	<hr/>
	5880	777
Loan Charges		99
	<hr/>	<hr/>
		876
Less Income	73	7
	<hr/>	<hr/>
	£5807	£869

£6676

	1942-3	1943-4
Salvage—Gross Income	£2957	£2238
Refuse Collection	8454 tons	9098 tons
Cost per ton	14/1.99	12/9.07
Refuse Disposal	8804 tons	9647 tons
Cost per ton	2/2.44	1/7.14
Total cost per ton, collection and disposal	16/4.43	13/10.37
Number of Premises from which refuse was collected	7519	7519
Cost per 1,000 premises—		
Collection	£796.3	£772.3
Disposal	£129.3	£115.6

House and Trade Refuse Collection

The quantity of House and Trade Refuse collected for the period of this Report, 1st April, 1943, to 31st March, 1944, is as follows:—

- 4038 loads weighing 8610 tons, 10 cwt.
- 41 loads not weighed (Highways and Parks).
- 650 tumbler loads of night soil.
- 325 loads by private persons not weighed.

1	Total refuse collected (in tons)	9089
	Total refuse disposed (in tons)	9647
2	Area (in Acres)	7124
3	Number of houses or premises	7519
4	Rateable Value	£224066
5	Product of 1d. Rate	£907
6	Total Rates in the £	16/6

Maintenance of regular collection has again been very difficult even though we are collecting fortnightly. In addition to petrol economy and staffing difficulties, our lorries require constant and careful attention in order to maintain them in roadworthy condition, two lorries being now nine years old, one is 7 years and the remaining two are 6 years old,

Lack of standardisation has aggravated the spare part problem, although we have but five lorries, these include two distinct makes and three different types of one of the makes. Obviously there can be little interchangeability and the stock of spare parts cannot be so comprehensive as would have been the case had we had, say, one standard type of vehicle.

Collection of kitchen waste by private pig and poultry keepers by means of street bins is steadily decreasing. This is entirely due to the amount of contraries constantly mixed with the waste food. Safety razor blades, broken glass ware and crockery, tea leaves, etc., are regularly found and pig keepers say the result does not justify the time and labour of collection and sorting. Every Hotel, Canteen, Restaurant and most Boarding Houses, as well as many private houses, are serviced by private arrangements. 80-100 tons were collected by known pig and poultry keepers and 20 tons by our Department.

Salvage

The Salvage figures, particularly that of paper, are quite pleasing. I think we all expected a substantial reduction in the returns because there is undoubtedly much less paper, etc., in circulation, but by great care and constant efforts on the part of our staff, we have, so far, managed to produce quite an appreciable amount of salvage. The figures represent the actual quantity collected by the Health Department, and do not cover the total salvage from the town. This applies particularly to paper—for example—all the waste paper from the Ministry Offices is sold privately by them, as is the waste paper from certain businesses.

We have three hand baling presses for paper, and the labour problem has been a constant trouble. Contraries in the paper have been a real nuisance and danger; broken glasses and crockery, safety razor blades, nails, cans and all manner of things have been found in the paper and have caused several cut hands amongst the personnel as well as wasting the men's time in sorting instead of baling. Disposal of the bales to the Recovery Mills has been very erratic owing to rail and road transport difficulties.

Borough of Colwyn Bay

CLEANSING SERVICES

State of Costs for the year ended 31st March, 1944

House and Trade Refuse

PARTICULARS	1—Collection including or excluding depreciation and loan charges.		2—Disposal including or excluding depreciation and loan charges.		Total including or excluding depreciation and loan charges	
	Included	Excluded	Included	Excluded	Included	Excluded
	£	£	£	£	£	£
Revenue Account						
1 Gross Expenditure (excluding Salvage)	5,880	2,655	876	777	6,756	6,432
2 Gross Income (excluding Salvage)	73	73	7	7	80	80
3 Net Cost	5,807	5,582	869	770	6,676	6,352
Unit Costs						
4 Gross Expenditure per ton	s 12 d .11	s 12 d 5.16	s 1 d 8.55	s 1 d 7.33	s 14 d 7.55	s 14 d 0.49
5 Gross Income per ton	1.93	1.93	.19	.19	2.12	2.12
6 Net Cost per ton	12 9.07	12 3.23	1 8.36	1 7.14	14 5.43	13 10.37
7 Net cost per 1000 population	£ 213.19	£ 205.3	£ 31.96	£ 28.3	£ 241.49	£ 233.6
8 Net cost per 1000 houses or premises from which refuse is collected	772.3	742.4	115.6	102.4	887.9	844.8

(Signed) WM. A. AUSTWICK, M.S.I.A., Sanitary Inspector.

SALVAGE

31st March, 1943, to 1st April, 1944

	Tons	Cwts	Qrs	Lbs			
Paper	347	2	2	26	2076	12	5
Tins	16	2	1	—	12	1	7
Bones	6	16	2	—	23	10	6
Rags	3	7	1	17	87	12	4
String and Sacking ...	—	8	2	14	2	2	8
Brass	—	3	3	20	5	3	0
Lead	—	5	2	9	6	8	11
Aluminium	—	1	3	11	5	5	8
Scrap Iron	5	14	1	1	14	9	2
Rubber (used tyres) ..	1	18	1	—	3	16	6
Canvas	—	1	2	—	0	7	6
Batteries	—	—	2	24	0	5	9
Feathers	—	—	1	7	0	1	3
Hair	—	—	—	14	0	3	9
Bottles	29 doz.	—	—	—	0	10	6
Pig Food	21	1	—	—	—		
	—	—	—	—	—		
	383	14	3	3	£2238	11	6
	—	—	—	—	—		

In conclusion of my report, may I express my appreciation for the help and many kindnesses shown by the Chairman and Members of the Public Health Committee, Dr. McKendrick, Medical Officer of Health, Mr. I. Wynn Jones, Additional Sanitary Inspector, and the indoor and outdoor staff.

(Signed) WM. A. AUSTWICK,
Senior Sanitary Inspector.

Orthopaedics

Patients treated in 1943 at the Orthopaedic Clinic were:—

On Books 1/1/43	7
Admitted during 1943	12
Total Treated	19
Discharged during 1943	5
On books 31/12/43	14
Attendances	46

The 5 discharges were patients who attained the age of 5 years and thereafter continued treatment under the County Education Scheme.

Ophthalmia Neonatorum

One case of this was notified to me by a Doctor and six by my own Staff. Notification is badly performed. Too often a diagnosis of a "cold in the eye" or a "draught" is made. Legally any condition of discharging eyes, no matter what the cause or gravity, during the first three weeks of life, is deemed to be Ophthalmia Neonatorum. In no case in recent years has any Colwyn Bay child suffered from impairment of vision. All those notified were treated by the Health Visitor under my direction at the Clinic.

Child Life Protection

At the end of 1943 there were 3 children on this Register. They were all in satisfactory homes.

Child Adoption Act

This Act is now in force and the Borough Council is an Authority required to administer it. A number of children were found homes and supervised by the Health Visitor in previous years. In future all cases of Child Adoption will be subject to consideration before the child is received into a new home and monthly reports for the first few months will be necessary. In 1943 no notices were given under Section 7 (5) of the Act, to me.

Water Supplies

The water supply of the town has been subjected to careful inspection at its source, in the mains and at points of delivery. The water is chlorinated and has been satisfactory. At a few isolated points, the samples have proved unsatisfactory; in such cases defective service pipes, etc., have been revealed.

The following is a copy of the Analyst's report dated 1st September, 1943.

In parts per 100,000 of water:—	
Total solid matter in solution	4.0
Nitrogen in Nitrates and Nitrites ...	0.1
Chlorine in Chlorides	0.7
Oxygen absorbed from Permanganate in 4 hours at 80°F.	0.16
Free and Saline Ammonia	0.004
Albuminoid Ammonia	0.010
Lead; Copper; Zinc	Nil
Microscopical examination of the Sediment	Slight trace of iron rust
Temporary Hardness in degrees Clark	0.3
Permanent Hardness in degrees Clark	0.3

Remarks: This sample is satisfactory. The trace of sediment is probably derived from the Mains pipes.

(Signed) HAROLD LOWE, M.Sc., F.I.C.

The following Bacteriological tests were made:—

Town Mains	44
Wells and Streams	—

Subsidiary supplies for outlying areas have received much, as yet unproductive, consideration. Bryn-y-Maen and Llan-elian districts need an improved supply. Whether the new interest of the Central Authority will be helpful or not remains problematical.

Mr. E. Oliver Jones, Engineer to the Conway and Colwyn Bay Joint Water Board, informs me that over 486 million gallons were supplied to Colwyn Bay in 1943. The rainfall at the Collecting Ground was 89.43 inches and this fell fairly evenly throughout the year—over 0.01 inches being recorded on 202 days. The wettest months were January, May, August and October.

Drainage

No major alterations in the drainage of the town were made in 1943. Alterations are necessary but these are not likely to be undertaken until after the war. Flooding in the Penrhyn Avenue area occurred due to unusual natural conditions of flood rain coinciding with high tides at a time when wartime difficulties of replacement made the machinery incapable of answering the demand for extra pumping. These coincidences are not likely to recur.

Immunisation

Immunisation has gone on steadily during the year. Last year I was able to state that 88 per cent. of the children between 1 and 5 years and 98 per cent. of children between 5 and 15 years had been immunised. These figures were based on a direct survey of all schools and institutions in the Borough. During 1943, 182 children under 5 and 84 children of 5 and 15 were immunised. It is difficult to give an accurate statement of the percentage of children done, without a census. The movement of children is very considerable. Many children who have been resident in Colwyn Bay for a few months only, were immunised. To keep a reasonably accurate check would entail much work which would not be justifiable. I have immunised more children than there are resident in the Borough.

A card index system has been organised. In it there are the names of 1,543 children aged 1 to 5. Of these 1,457 have been immunised, and there are 3,063 children 5 to 15 of whom 2,829 are immunised. Unfortunately it is impossible to keep this card index up to date as the number of immigrants and emigrants is very considerable each month. Consequently the index shows more children than there are actually in the town. The survey was approximately accurate in January, 1944, when I found that 97 per cent. of the children then in school were immunised and 99 per cent. of children under

the age of 5 according to the Health Visitor's Records, were immunised. This percentage is no doubt lower now and an estimate gives 93 per cent. of children under 5 and 92 per cent. of children 5 to 15 were immunised.

Since April, 1943, 214 children have been immunised against Whooping Cough. They were given 2 doses of vaccine with the Diphtheria Prophylactic at an interval of four weeks. An epidemic of whooping cough occurred in the area in the Spring of 1944 and those immunised seem to have benefited. In many cases associates have been severely affected where immunised children have either escaped or been only mildly affected.

Food and Drugs (Adulteration) Act, 1933

The following statement was given me by the Chief Inspector of the Denbighshire County Council.

Particulars of samples of Food and Drugs taken in the Borough of Colwyn Bay, by the Inspectors of the Denbighshire County Council during the year ended 31st December, 1943.

Article	No. taken	Genuine	Not genuine or Sub-standard
Milk	41	43	8
Milk Powder	2	1	1
Sweet Spirit of Nitre	2	1	1
Pepper	1	1	—
Vinegar	1	1	—
Jam	3	3	—
Lard	2	2	—
Potted Paste	1	1	—
Butter	7	7	—
Margarine	2	2	—
Egg Powder	2	2	—
Pancake Mixture	1	1	—
Sausage	3	3	—
Lemon Drink	1	1	—
Tinned Vegetables	1	1	—
Golden Syrup	1	1	—
Saccharin Tablets	1	1	—
Glucose D.	1	1	—
Bread	2	2	—
Totals	85	74	11

In addition to the above, 5 Informal Samples of Milk were tested for preliminary examination.

Of the 8 milk samples certified as "not genuine," 4 were slightly eliminated by "appeal" samples, the remainder were only slightly below the legal standard, and contained no added water.

An informal sample of Sweet Spirit of Nitre was deficient in active principle.

A sample of Baking Powder, and also one of Skimmed Milk Powder were not satisfactory, owing to the effect of damp storage.

All other samples were certified as genuine, and were free from all prohibited preservatives and colouring matter.

D. WYNNE GRIFFITH, Chief Inspector.

Woodland Road East, Colwyn Bay.

4th May, 1944.

Propaganda

No new propaganda efforts were undertaken by the Health Department during the year. The steady teaching of mothers, etc., proceeds effectively and much of the centrally inspired newspaper propaganda successfully negated.

Schools

These are regularly visited and found satisfactory.

Infectious Diseases

The Head Teachers of the Schools informed me of the following cases of Infectious Disease amongst pupils:—

Whooping Cough	21	
Scarlet Fever	15	
Chicken Pox	4	
Impetigo	2	
Measles	103	(mainly in March and April)
Jaundice	1	
Scabies	3	
	<hr/>	
Total	149	
	<hr/>	

The following table shows the incidence of Notifiable Diseases in the town, the number admitted to the Isolation Hospital and the number of deaths :—

Number of Cases Notified at ages										Number of Deaths at ages—Years									
Notifiable Diseases	Years									Total cases rem'y'd to Hospital	Years								
	At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Under 1 year		1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Totals		
Diphtheria	25	1	...	8	7	9	...	24	...	...	...	*1	...	...	...	1
Erysipelas	5	1	...	...	...	1	...	3	1	...	...	...	...	...	...	...
Scarlet Fever	34	...	5	23	1	5	...	25	...	...	...	...	...	...	...	...
Enteric Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal M.	1	...	...	...	1	...	...	1	...	...	...	1	...	...	...	1
Pulmonary T.B.	36	...	...	1	11	15	9	...	...	...	...	...	5	5	1	11
Other forms of T.B. ...	6	...	...	1	2	3	...	...	...	...	...	1	2	1	1	5
Pneumonia	12	...	2	...	4	3	3	...	...	1	...	...	2	4	6	13
Ophthalmia Neon.	7	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	276	6	81	172	12	3	1	1	4	...	1	...	...	...	...	1
Whooping Cough	25	1	6	16	...	2	...	...	...	...	...	...	...	...	...	...
Poliomyelitis, etc.	1	...	1	...	...	...	...	1	...	...	1	...	...	...	...	1
Puerperal Fever	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...
Dysentery	4	...	...	...	...	1	1	2	1	...	...	...	...	...	...	...
Totals	433	16	95	221	35	43	14	9	58	1	2	...	3	9	10	8	33		

*Died before being admitted to Hospital.

The Vaccination Officer reports that of 329 children registered in the town who continued to reside here, 172 were successfully vaccinated and only 90 claimed exemption. It is satisfactory to find that good sense prevails over the plausible inaccuracies of anti-vaccinationists and that vaccination is becoming increasingly popular. The fact that the time of travel from dangerous areas to this country is now shortened to about a fifth of former times, makes the risk of importation of small pox into Britain much more possible,

The actual figures given me are:—

Births registered	388
Removed before vaccination was due ...	59
Exempt	90
Successfully vaccinated	172
Died unvaccinated	6
Postponed	61

Tuberculosis

It has not been necessary to take action under the Public Health (Prevention of Tuberculosis) Regulations, 1925 (relating to persons suffering from Pulmonary Tuberculosis employed in the milk trade) or under Section 172 of the Public Health Act, 1936 (relating to the compulsory removal to Hospital of persons suffering from Tuberculosis).

The following table was sent me by Dr. H. M. Williams, Tuberculosis Physician for the Area:—

New Cases and Contacts examined during the year	Pulmonary				Non-Pulmonary				Grand
	Adults M	C'dren F	Adults M	C'dren F	Adults M	C'dren F	Adults M	C'dren F	
(a) Definitely Tuberculosis	11	7	1	—	—	1	1	—	21
(b) Diagnosis not completed ...	3	4	1	1	—	—	—	—	9
(c) Non Tuberculous	54	18	3	5	1	3	3	3	90
(d) Tuberculous Transfer Cases	3	1	—	—	—	—	1	—	5
Totals	71	30	5	6	1	4	5	3	125

Number of Attendances at the Dispensary	207
Number of Domiciliary Visits	43
Number of Service Cases examined	—
Number of Official Evacuees examined	40
Number of Unofficial Evacuees examined	27
Number of cases referred by the Medical Board for examination	45

Tuberculosis deaths increased from 4 in 1943 to 14 in 1944 and notifications fell from 46 to 42. The number of names on the Register in 1942 was 256, and in 1943 was 283. Many of those named are evacuees. ...

The Analysis of the 42 notifications is shown in the following table:—

Age Periods	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M	F	M	F	M	F	M	F
0—1	—	—	—	—	—	—	—	—
1—4	—	—	—	—	—	—	—	—
5—9	—	1	—	—	—	—	—	—
10—14	—	—	1	—	—	—	—	—
15—19	4	—	1	—	—	—	1	—
20—24	—	7	—	1	—	—	—	—
25—34	5	—	—	—	2	3	1	1
35—44	3	5	2	—	—	—	—	1
45—54	4	2	—	—	2	—	—	—
55—64	2	3	—	—	2	1	—	—
65 and upwards	—	—	—	—	—	1	1	—
Totals	18	18	4	2	6	5	3	2

Colwyn Bay Meteorological Observations, 1943

MONTH	Mean reading of Mercurial Baromet- er in Inches	Dry Bulb Thermometer F. (mean)	Wet Bulb Thermometer F. (mean)	Maximum Thermo- meter F. mean	Minimum Thermo- meter F. (mean)	Rainfall in Inches 5 in. Gauge	Number of Wet Days	Max. Rain in inches during 24 hours and date	Hours Sunshine by Campbell Stokes Recorder
January	29.59	44.8	41.9	47.5	39.3	3.26	26	.55 on 30th	40.1
February	30.03	45.8	43.6	49.0	40.0	2.45	12	1.04 on 8th	71.6
March	30.08	46.9	43.8	51.3	39.9	2.17	9	.70 on 31st	139.9
April	30.04	51.3	48.4	57.0	45.0	1.16	10	.27 on 23rd	144.9
May	30.03	54.5	51.1	59.2	44.5	2.42	11	.73 on 9th	215.6
June	30.22	55.1	58.4	63.0	51.0	2.31	13	.40 on 1st	229.7
July	29.65	61.5	58.6	67.0	56.0	2.10	10	.75* on 6th	209.5
August	29.82	61.3	58.7	66.0	56.0	2.76	19	.35 on 26th	133.9
September	29.93	59.2	54.1	62.2	50.9	3.65	19	.59 on 16th	112.9
October	29.82	54.3	51.0	58.0	44.0	3.91	20	.47 on 31st	109.8
November	29.97	46.8	44.7	50.8	42.2	2.82	21	.48 on 28th	37.6
December	30.12	40.8	39.6	45.3	36.3	1.52	10	.37 on 17th	52.2
TOTALS						29.53	180		1497.7
Mean of Means	29.94	52.1	49.2	56.4	45.7				

Town Hall,

(Sgd.) N. S. JEFFREY, A.M., Inst., C.E.

A. M. WILLIAMS,

Colwyn Bay.

Borough Engineer and Surveyor.

Observer.





